REMARKS

Claims 1-13 and 15-26 are currently pending, wherein claim 1 has been amended to include the subject matter of canceled claim 14. Applicant respectfully requests favorable reconsideration in view of the remarks presented herein below.

In paragraph 2 of the Office Action ("Action"), the Examiner objects to the drawings because figures 1-8 are too dark. Applicant submits herewith replacements drawings, thereby addressing the Examiner's concerns.

In paragraph 4 of the Action, the Examiner objects to claims 8, 15, 20, and 21 under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. Applicant has amended claims 8, 15, 20 and 21 to correct the typographical errors, thereby addressing the Examiner's concerns. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 8, 15, 20 and 21 under 35 U.S.C. 112, second paragraph.

In paragraph 6 of the Action, the Examiner rejects claims 1-9, 11-15, 19-21 and 24 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,771,029 to Ribarich et al. ("Ribarich") in view of U.S. Patent No. 5,909,429 to Satyanarayana et al. ("Satyanarayana"). Applicant respectfully traverses this rejection.

In order to support a rejection under 35 U.S.C. §103, the Examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some motivation to combine the cited references. Second, there must be reasons expectation of success. Finally, the combination must teach each and every claimed element. In the present case, claims 1-9, 11-15, 19-21 and 24 are patentable over the combination of Ribarich and Satyanarayana because the Examiner fails to establish a *prima facie* case of obviousness as discussed below.

In rejecting the pending claims, the Examiner asserts that Ribarich discloses "an electronic ballast circuit that is networked with other ballast circuits to provide large scale lighting control on a local or remote basis" that "teaches or suggests the claimed features of the instant application." Although, the Examiner notes that Ribarich fails to disclose a wireless internet control center, or a data processing module connected to the ballast control module via wireless communications link as claimed, the Examiner relies on Satyanarayana to overcome the deficiencies of Ribarich. More specifically, the Examiner asserts that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have used and RF transmitter as disclosed by Satyanarayana with the lighting control system of Ribarich so as to employ a technique for data transmission at different frequencies" because the "use of an RF

transmitter minimizes the likelihood of an inadvertent transmission of data." These assertions are unfounded for the following reasons.

First, the mere fact that references can be combined is not in as of itself sufficient to render the resultant combination obvious. (See MPEP §2143) The Examiner asserts that one skilled in the art would be motivated to include an RF radio cartridge decoder in the ballast circuit of Ribarich as allegedly disclosed by Satyanarayana because an RF transmitter minimizes the likelihood of an inadvertent transmission of data. However, Applicants note that the use of an RF transmitter does not in and off itself minimize the inadvertent transmission of data. To the contrary, it is well known in the art that the wireless communications are more acceptable to interference during transmission than are hard wire communications systems. In addition, it is also well known in the art that the operating frequency of electronic ballast create noise which infers with wireless communications. Therefore, a wireless circuit cannot simply be added to an electronic ballast.

Furthermore, nowhere in Ribarich or Satyanarayana is there any disclosure or suggestion the "use of an RF transmitter minimizes the likelihood of an inadvertent transmission of data." To the contrary, Ribarich fails to disclose or suggest any form of wireless transmission, and Satyanarayana discloses that in order to minimize the likelihood of an inadvertent transmission of address and default setting data from the installation tool to any node other than the node being programmed, the RF transmitter of the installation tool should be set to a low RF power setting and held close to the node to be programmed. (See column 7, lines 36-46 of Satyanarayana). Therefore, absent proper motivation to combine the cited references the rejection of claims 1-9, 11-15, 19-21 and 24 is improper.

Furthermore, even if, *arguendo*, one skilled in the art were motivated to combine Ribarich and Satyanarayana, which Applicant does not concede, the combination would still fail to render claims 1-9, 11-15, 19-21 and 24 unpatentable because the combination fails to disclose each and every claimed element as discussed below.

Independent claim 1, as amended, defines a lighting control system. The system includes, *inter alia*, a ballast control module configured to communicate with a lighting ballast, a data processing module connected to the ballast control module via a wireless communications link, and a wireless internet control center wirelessly connected to the ballast control module via the data processing module and arranged to operate a plurality of utility operation applications. In addition, the ballast control module includes a potentiometer arranged to generate signals, voltages, and resistances to operate the lighting ballasts; a microcontroller arranged to convert

internet protocol to local area network protocol and vice versa, and to control traffic flow, data storage and logic of the ballast control module, and an RF radio cartridge decoder arranged to connect portions of the ballast control module to the communications link, wherein the RF radio cartridge transmits data at multiple frequencies at both fast and slow transfer rates.

Nowhere in Ribarich is there any disclosure or suggestion of a ballast control module that includes a potentiometer arranged to generate signals, voltages, and resistances to operate the lighting ballasts; a microcontroller arranged to convert internet protocol to local area network protocol and vice versa, and to control traffic flow, data storage and logic of the ballast control module, and an RF radio cartridge decoder arranged to connect portions of the ballast control module to the communications link, wherein the RF radio cartridge transmits data at multiple frequencies at both fast and slow transfer rates as claimed.

The Examiner asserts that the microprocessor 22 disclosed in Ribarich is capable of converting an internet protocol to a local area network protocol and vice versa in as much as Ribarich discloses that the microprocessor is addressable by user interface 10 for bidirectional communication of status, commands and so forth. However, the disclosure of bidirectional communication is not equivalent to disclosing that the controller can convert between different communication protocols. Nowhere in Ribarich or Satyanarayana is there any disclosure or suggestion of converting between multiple protocols. Furthermore, nowhere in Ribarich or Satyanarayana is there any disclosure or suggest of a ballast control module that includes a potentiometer arranged to generate signals, voltages, and resistances to operate a lighting ballast as claimed.

Since Ribarich and Satyanarayana both fail to disclose or suggest each and every claimed element as discussed above, the combination of these two patents cannot possibly disclose said elements. Therefore, even if one skilled in the art were motivated to combine Ribarich and Satyanarayana, which Applicant does not concede, the combination would still fail to render claim 1 unpatentable because the combination fails to disclose each and every claimed element.

Dependent claims 5-7 are patentable over the combination of Ribarich and Satyanarayana, not only for those reasons presented above with respect to claim 1, from which they depend, but also because Ribarich and Satyanarayana fail to disclose or suggest that the ballast control module is connected to the lighting ballast via a low voltage interface (claim 5), a power line carrier (claim 6), or a digital addressable lighting interface (claim 7). To the contrary, the circuitry of Ribarich, which the Examiner asserts is equivalent to the claimed ballast control module, is contained within the lighting ballast itself. Therefore, there is no need

for the claimed interfaces in as much as the control circuit of Ribarich is contained within the lighting ballast.

Claims 2-4, 11-13, 15, 19-21 and 24 variously depend from independent claim 1. Therefore, claims 2-4, 11-13, 15, 19-21 and 24 are patentable over the combination of Ribarich and Satyanarayana for at least those reasons presented above with respect to claim 1.

For at least those reasons presented above, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-9, 11-15, 19-21 and 24 under 35 U.S.C. §103(a).

In paragraph 7 of the Action, the Examiner rejects claims 17 and 18 under 35 U.S.C. §103(a) as allegedly being unpatentable over Ribarich in view of Satyanarayana, further in view of U.S. Patent No. 5,471,119 to Ranganath et al. ("Ranganath"). Applicant respectfully traverses this rejection.

As discussed above, the mere fact that references can be combined does not in and of itself render the resultant combination obvious. In rejecting claims 17 and 18, the Examiner asserts that it would have been obvious to one skilled in the art to "use th[e] switching mechanism as taught by Ranganath with the lighting control system of Ribarich because of the reduction of output voltage which results in energy efficient lighting system." However, Applicant notes that neither Ranganath, Ribarich, nor the Office Action provides any evidence that the switching mechanism allegedly taught by Ranganath is any more energy efficient than the ballast circuitry of Ribarich. Accordingly, it is unclear why one skilled in the art would be motivated to modify the ballast circuit of Ribarich to achieve results achievable without modification. Accordingly, absent proper motivation to combine the cited references the rejection of claims 17 and 18 is improper.

Furthermore, even if, *arguendo*, one skilled in the art were motivated to combine Ribarich, Satyanarayana, and Ranganath, which Applicant does not concede, the combination would still fail to render claims 17 and 18 unpatentable because the combination fails to disclose each and every claimed element as discussed below.

Claims 17 and 18 variously depend from independent claim 1. Therefore, claims 17 and 18 are patentable over the combination of Ribarich and Satyanarayana for at least those reasons presented above with respect to claim 1. Ranganath discloses a distributed control system for lighting with intelligent electronic ballasts. However, Ranganath fails to overcome the deficiencies of Ribarich and Satyanarayana discussed above. For example, Ranganath fails to disclose a ballast control module that includes a potentiometer arranged to generate signals,

voltages, and resistances to operate the lighting ballasts; a microcontroller arranged to convert internet protocol to local area network protocol and vice versa, and to control traffic flow, data storage and logic of the ballast control module, and an RF radio cartridge decoder arranged to connect portions of the ballast control module to the communications link, wherein the RF radio cartridge transmits data at multiple frequencies at both fast and slow transfer rates as claimed.

Since Ribarich, Satyanarayana, and Ranganath each fail to disclose or suggest each and every claimed element as discussed above, the combination of these three patents cannot possibly disclose said elements. Therefore, even if one skilled in the art were motivated to combine Ribarich, Satyanarayana, and Ranganath, the combination would still fail to render claims 17 and 18 unpatentable because the combination fails to disclose each and every claimed element.

For at least those reasons presented above, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 17 and 18 under 35 U.S.C. §103(a).

In paragraph 8 of the Action, the Examiner rejects claims 22, 23, 25, and 26 under 35 U.S.C. §103(a) as allegedly being unpatentable over Ribarich, in view of Satyanarayana, further in view of U.S. Patent No. 6,792,323 to Krzyzanowski et al. ("Krzyzanowski"). Applicant respectfully traverses this rejection.

Claims 22, 23, 25, and 26 variously depend from independent claim 1. Therefore, claims 22, 23, 25, and 26 are patentable over the combination of Ribarich and Satyanarayana for at least those reasons presented above with respect to claim 1. Krzyzanowski discloses a system for managing controlled residential or non-residential environments.. However, Krzyzanowski fails to overcome the deficiencies of Ribarich and Satyanarayana discussed above. For example, Krzyzanowski fails to disclose a ballast control module that includes a potentiometer arranged to generate signals, voltages, and resistances to operate the lighting ballasts; a microcontroller arranged to convert internet protocol to local area network protocol and vice versa, and to control traffic flow, data storage and logic of the ballast control module, and an RF radio cartridge decoder arranged to connect portions of the ballast control module to the communications link, wherein the RF radio cartridge transmits data at multiple frequencies at both fast and slow transfer rates as claimed.

Since Ribarich, Satyanarayana, and Krzyzanowski each fail to disclose or suggest each and every claimed element as discussed above, the combination of these three patents cannot possibly disclose said elements. Therefore, even if one skilled in the art were motivated to combine Ribarich, Satyanarayana, and Krzyzanowski, the combination would still fail to render

claims 22, 23, 25, and 26 unpatentable because the combination fails to disclose each and every claimed element. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 22, 23, 25, and 26 under 35 U.S.C. §103(a).

In paragraph 9 of the Action, the Examiner rejects claims 9 and 10 under 35 U.S.C. §103(a) as allegedly being unpatentable over Ribarich, in view of Satyanarayana, further in view of U.S. Patent No. 6,836,080 to Kazanov et al. ("Kazanov"). Applicant respectfully traverses this rejection.

Claims 9 and 10 variously depend from independent claim 1. Therefore, claims 9 and 10 are patentable over the combination of Ribarich and Satyanarayana for at least those reasons presented above with respect to claim 1. Kazanov discloses an energy savings device for a resistive and/or inductive load. However, Kazanov fails to overcome the deficiencies of Ribarich and Satyanarayana discussed above. For example, Kazanov fails to disclose a ballast control module that includes a potentiometer arranged to generate signals, voltages, and resistances to operate the lighting ballasts; a microcontroller arranged to convert internet protocol to local area network protocol and vice versa, and to control traffic flow, data storage and logic of the ballast control module, and an RF radio cartridge decoder arranged to connect portions of the ballast control module to the communications link, wherein the RF radio cartridge transmits data at multiple frequencies at both fast and slow transfer rates as claimed.

Since Ribarich, Satyanarayana, and Kazanov each fail to disclose or suggest each and every claimed element as discussed above, the combination of these three patents cannot possibly disclose said elements. Therefore, even if one skilled in the art were motivated to combine Ribarich, Satyanarayana, and Kazanov the combination would still fail to render claims 9 and 10 unpatentable because the combination fails to disclose each and every claimed element. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 9 and 10 under 35 U.S.C. §103(a).

In paragraph 10 of the Action, the Examiner rejects claims 14 and 16 under 35 U.S.C. §103(a) as allegedly being unpatentable over Ribarich, in view of Satyanarayana, further in view of U.S. Patent No. 5,381,078 to Szuba ("Szuba"). Applicant respectfully traverses this rejection.

Claims 14 and 16 variously depend from independent claim 1. Therefore, claims 14 and 16 are patentable over the combination of Ribarich and Satyanarayana for at least those reasons presented above with respect to claim 1. Szuba discloses a wall-mounted electronic potentiometer system for controlling fluorescent lamps by way of ceiling mounted controllers. However, Szuba fails to overcome the deficiencies of Ribarich and Satyanarayana discussed

above. For example, Szuba fails to disclose a ballast control module that includes a potentiometer arranged to generate signals, voltages, and resistances to operate the lighting ballasts; a microcontroller arranged to convert internet protocol to local area network protocol and vice versa, and to control traffic flow, data storage and logic of the ballast control module, and an RF radio cartridge decoder arranged to connect portions of the ballast control module to the communications link, wherein the RF radio cartridge transmits data at multiple frequencies at both fast and slow transfer rates as claimed.

Since Ribarich, Satyanarayana, and Szuba each fail to disclose or suggest each and every claimed element as discussed above, the combination of these three patents cannot possibly disclose said elements. Therefore, even if one skilled in the art were motivated to combine Ribarich, Satyanarayana, and Szuba the combination would still fail to render claims 14 and 16 unpatentable because the combination fails to disclose each and every claimed element. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 14 and 16 under 35 U.S.C. §103(a).

The application is in condition for allowance. Notice of same is earnestly solicited. Should the Examiner find the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911.

Dated: September 15, 2005

Respectfully submitted,

By Penny L Caudle

Penny L. Caudle
Registration No.: 46,607
MCKENNA LONG & ALDRIDGE LLP
1900 K Street, N.W.
Washington, DC 20006
(202) 496-7500
Attorneys for Applicant

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of replacement drawings include Figs. 1-8. These sheets, which includes Figs. 1-8, replace the original sheets including Figs. 1-8.

Attachment: Replacement sheets